

# **EXHIBIT 4**



Lockwood, Andrews  
& Newnam, Inc.  
A LEO A DALY COMPANY

# DESIGN NOTES AND COMPUTATIONS

SUBJECT: FLINT DESIGN MTG

SHEET NO.

OF

6/24/13

- Youngs Res. moving line tomorrow.
- Dies in touch w/ Utes Tech.
- Scheduled new to start run 7/8 run 4 wks. 1 wk about soft. 3 with.
- What is Brent talking about - continuation of Res. 3? No treatment that is why.
- Not equipped for over 20 mgd returns of intermediate. (12) <sup>is running</sup> <sub>about</sub> <sup>treating</sup>
- MDEQ. need's to approve chemicals. 191. <sup>41</sup> ~~191~~
- 100% off liner for interior.
- Flint has made request to DCRD to bleed - Has not heard back.
- Will try to run back up to 36 mgd.
- Ozone. 3 @ 12 mgd each
- Filters 3 @ 12 " also.
- I'm concerned about THM formation. potential - 300 → 440.
- Bromate.
  - Most likely from (industrial) near Holloway Res.
- More concerned about turbidity.
- ~~Removal of turbidity with flocculation~~
- ~~Removal of turbidity with flocculation~~ down to below 150
- What to do w/ sludge.
  - Bury it?
  - 240 tons/wk. big worst case.
  - will ex. some begin. need to check calc.
- 8" pipe segment on 9.30.
- DCRD reserv. & transfer P.S.
- Em.
- MDEQ. want dictate solution on electr., but thinks generators better.
  - Dave J. mentioned timing issues to get C&E to do something.
  - & lead time on equipment.
- KWA. when to bring flow & @ what pressure?
  - DCRD reserv. - enough to get over well.
- KWA. chlorinating at intake, but probably not much more.
  - Ozone process cannot have etc.

Dart Reserv. 750.5 w.b. elev ~ 747. #2 in ozone

- Cnty max. say mid 20's.

avg last wk 13 mgd.

Avg. of both 11+11 use 23.24

Flint max day.

Prtyshy. 5 yr. max. 31.6

2030 demand is 24 mgd.

min. 7 mgd  
actual 12 mgd  
5 yr. avg. 13.9 mgd

PREPARED BY

DATE

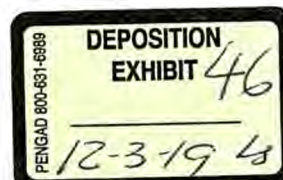
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DATE

PROJECT NUMBER

D-005

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other regulatory issues.  
none.

lead / copper monitoring

- All set for fluoridation.